



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 817,521	03 26 2001	Richard W. Schramke	15-0228	7246

7590 09 23 2002

Michael S. Yatsko
TRW Inc.
Law Dept.
One Space Park, Bldg. E2/6051
Redondo Beach, CA 90245

EXAMINER

GUTIERREZ, ANTHONY

ART UNIT PAPER NUMBER

2862

DATE MAILED: 09/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,521

Applicant(s)

SCHRAMKE ET AL.

Examiner

Anthony Gutierrez

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 7-11, 16-22, 23, 26, 28, 29, and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Hassett (5347274).

As to claims 1, 2, and 9, Hassett discloses a system for managing the shipment of hazardous material goods, comprising: a storage device for storing data selected from the group of shipment data, geographic positioning data, weather data, emergency conditions data, emergency response data, geospatial data and combinations thereof (col. 2, lines 13-18, 35-43 and 50-54), a processor for retrieving in near real-time and updating at least one data set in the storage module (col. 3, line 63-col. 4, line 3 and col. 5, lines 6-8), an analysis module for analyzing the data and providing the results of the analysis to a user (col. 6, lines 26-38) and a sensor for monitoring the shipment and transmitting information to the processor in the event of an emergency condition (col. 2, lines 43-59).

As to claim 10, Hassett discloses a method for managing a shipment of hazardous material goods comprising: obtaining shipment data containing information about the goods (col. 2, lines 13-18 and 35-43); determining optimal and alternate

routes for transport of the goods, obtaining geographic positioning data about the location of the goods as they travel from a starting location to a distribution location, using the geographic positioning data to select weather data related to the location of the goods; monitoring the shipment with regard to transport progress and to detect an emergency condition; calculating a recommended response; and automatically notifying database-defined emergency response authorities (col. 5, lines 32-46).

As to claim 23, Hassett discloses a method for management of shipment of hazardous materials (col. 2, lines 13-18), said method comprising: obtaining weather data, shipment data, and geographic positioning data related to the shipment; sensing an emergency condition for the hazardous materials during the shipment; calculating an emergency hazardous condition and extent based on the weather data, shipment data and geographic positioning data (col. 5, lines 32-46); and wherein the emergency hazardous condition and extent is determined remotely based on the geographical position of the shipment (col. 5, lines 17-24).

As to claim 29, 35, and 36, Hassett discloses a management system for shipment of goods (col. 2, lines 13-18), the system comprising: a network for retrieving shipment data, geographical positioning data and near real-time weather data; and an emergency assessment module for detecting various conditions of the shipment enroute and projecting emergency conditions likely to be created in the event of an emergency condition of the goods as a function of retrieved data and recommended alterations to the route based on these conditions (col. 5, lines 32-46) and further comprising a sensor for monitoring the shipment, said sensor detecting the emergency condition (col. 5, line 65- col. 6, line 10).

As to claim 3, Hassett further discloses a system wherein the analysis module provides information selected from the group consisting of an optimal shipment route, an emergency condition determination, an emergency response, and as applicable, a projected plume dispersion (col. 5, lines 32-46).

As to claims 7, 8, 11, 16-18, 26 and 37 Hassett further discloses a system further comprising: a network for relaying shipment data, geographical positioning data and near real-time weather data; and an emergency assessment module for projecting potential emergency conditions as a function of the data; wherein information about the projected emergency conditions is transmitted over the network and is available for access at remote locations (col. 5, lines 32-46).

As to claims 19 and 28, Hassett discloses a method wherein the weather data is selected from the group consisting of wind speed, wind direction, air temperature, precipitation, percent cloud coverage and combinations thereof (col. 5, lines 42-46) where Hassett discloses a regional flood warning as an example, which is related at least to precipitation.

As to claim 20, Hassett discloses a method wherein the shipment data is selected from the group consisting of material, amount, toxicity, remediation methods, shipment source location, shipment destination location and combinations thereof (col. 2, lines 13-18 and 35-43) where Hassett discloses reporting the location during shipping and where the mobile unit is programmed with the identity of the hazardous material. These examples are related at least to material, shipment source location and shipment destination location.

As to claims 21 and 22, Hassett discloses a method including using the geographic positioning data to select geospatial data that is selected from the group consisting of road type, surface type, road limitations, speed restrictions, road conditions, traffic speed and density, transport restrictions, inclination and combinations thereof (col. 5, lines 32-46) where Hassett discloses that the management program compiles and updates tracking reports for a load as it progresses along its route so that shipment can be suspended or re-routed depending on a predicted traffic impediment in a particular region.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 14, 15, 27, 33, 34, 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassett (5347274) in view of Smith et al. (5724255).

As to claims 4, 14, 15, 27, 33, 34, 38-40, Hassett discloses emergency assessment and notification modules for automatically transmitting an emergency message based on an anticipated emergency condition which is calculated based on shipment data, geographic positioning, geospatial data and weather data (col. 5, lines 32-46).

Hassett does not disclose a system wherein the emergency condition is a projected plume dispersion.

Smith et al., however, discloses a projected plume dispersion which is related to an emergency condition determination, the dispersion being calculated based on shipment data, geographic positioning data, geospatial data and near real-time weather data specific to the emergency condition and physical location, wherein a recommended response is based on the projected plume dispersion (col. 1, lines 29-62).

Hassett further discloses that a method of electronically marking, identifying, and managing hazardous cargo and vehicles could decrease the risk to the general public and might cost-effectively provide information enroute that would enhance safety measures for emergency personnel called to handle an accidental rupture of a hazardous material container (col. 1, lines 55-61).

Smith et al. further discloses that inevitably in production, transportation, storage and use of chemicals accidents occur that can endanger human, animal, and aquatic life and property (col. 1, lines 24-28). Smith et al. further discloses that some of the chemicals that endanger life are dispersed in plumes and because some chemicals generate plumes while others do not, it has become necessary for response personnel to be able to quickly identify harmful chemicals and develop a protective action zone based on various meteorological and physical conditions surrounding the site, which is especially important where the evacuation of human life might be important but also expensive (col. 1, lines 29-61).

It would therefore be obvious to one skilled in the art at the time of invention to modify Hassett in view of Smith et al. in order to provide for a more comprehensive

method of hazardous materials management that maximizes cost-efficiency without compromising safety to humans, animals, and the surrounding environment.

5. Claims 5, 6, 12, 13, 24, 25, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hassett (5347274) in view of Robinson et al. (6381538).

As to claims 5, 12, 24, 30, 31, Hassett discloses suspending or re-routing shipments when there is potential to encounter a dangerous condition (col. 5, line 42-46).

Hassett does not disclose the use of an impedance type model.

Robinson et al., however, discloses a system and method further comprising determining optimal and alternate routes, and determining a proposed route calculated based on risk analysis that consists of an impedance type model which summarizes "resistance" of a route and which selects the lowest "resistance" path (col. 3, lines 39-45, col. 2, line 63-col. 3, line 32, col. 4, lines 14-63 and col. 11, lines 17-36).

It would be obvious to modify Hasett in view of Robinson et al. in order to provide accurate up-to-date information on the environmental conditions likely to be encountered during shipping which is necessary for traveling across both a pre-planned and altered route as taught by Robinson et al. (col. 3, lines 39-45 and col. 1, lines 12-28).

As to claims 6, 13, 25, 32, neither Hassett nor Robinson et al. disclose wherein data on the route and along all possible alternative routes includes population density and distribution, political boundaries, environmental boundaries, surface inclination and topology, road surface type, road dimensions, road height and weight limitations, road authorizations for cargo types, and road segment distances.

Robinson et al. however discloses simplifying the route-planning task by suggesting optimized routings based on minimizing certain parameters (col. 4, lines 30-33) and that a course is optimized around various environmental conditions based on specific criteria (col. 4, lines 43-48). It is well known in the art that population density and distribution, political boundaries, environmental boundaries, surface inclination and topology, road surface type, road dimensions, road height and weight limitations, road authorizations for cargo types, and road segment distances are examples of criteria that are related to parameters that when minimized would provide an optimized route. It would therefore be obvious to one skilled in the art at the time of invention to include such criteria in order to provide the most comprehensive minimization of parameters resulting in the most optimal route.

Application/Control Number: 09/817,521
Art Unit: 2862

Page 9

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: (5815417), (6356822).


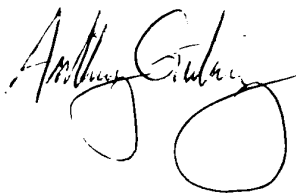
7. Any inquiry concerning this communication should be directed to Anthony Gutierrez whose telephone number is (703) 305-1973.

Any questions addressed toward a Supervisory Primary Examiner should be directed to Edward Lefkowitz whose telephone number is (703) 305-4816.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4900. The fax number is (703) 306-5515.

Anthony Gutierrez

9/10/02



EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800